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ANIMAL AND PLANT HEALTH INSPECTION SERVICE
PLANT PROTECTION AND QUARANTINE PROGRAMS
NEW PEST DETECTION AND SURVEY STAFF

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Service serves as a clearing house and does not assume responsibility for accuracy of the material.

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COOPERATIVE ECONOMIC INSECT REPORT

HIGHLIGHTS

Current Conditions

CORN EARWORM economic on corn in Kansas and Nebraska and on soybeans in Alabama and North Carolina. (p. 755).

FALL ARMYWORM heavy on sorghum, corn, and grasses in Florida, Mississippi, Alabama, and North Carolina. (p. 756).

EUROPEAN CORN BORER heavy on corn in Wisconsin and Nebraska. (p. 756).

Treatments required for VELVETBEAN CATERPILLAR on soybeans in Alabama and Florida. (p. 757).

BOLL WEEVIL continued heavy in Texas, Oklahoma, and Alabama. (pp. 757-758).

FALL WEBWORM heavy on pecan and other nut trees in parts of Texas, Oklahoma, Mississippi, Alabama, Missouri, and North Carolina. (p. 760).

Detection

FACE FLY found for the first time in Louisiana. (p. 761).

For new county and parish records, see page 759.

Reports in this issue are for the week ending September 5 unless otherwise indicated.

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WEATHER OF THE WEEK ENDING SEPTEMBER 7

Reprinted from Weekly Weather and Crop Bulletin supplied by National Weather Service, NOAA.

HIGHLIGHTS: Although the week's weather opened on a summery note, fall was soon in the air. High pressure systems along the Canadian border pulled cool air into the Northwest and Northeast. Unusually high temperatures in the Midwest returned to near normal levels. Precipitation amounts across the Nation were generally light.

PRECIPITATION AND TEMPERATURE: Most of the Nation celebrated favorable holiday weather on Monday. Sunshine and seasonally high temperatures prevailed from the Ohio and Mississippi Valleys through the Rockies. In the central Plains, skies cleared and temperatures shot up into the 90's and low 100's. The west coast fared under sunny mild conditions. Temperatures in the 70's with a few 60's in the mountains spread from northern parts of the Intermountain Region and Rockies across the northern Plains into the Upper Great Lakes. As usual the mercury in the Desert Southwest climbed above 100 degrees. In other areas showers and thunderstorms dampened festivities. Precipitation flowed a course that took it from the lower Great Lakes into northwest New England and through the Atlantic Coast States and Florida. Scattered activity fell along the gulf coast. Drifting slowly eastward, remnants of hurricane Caroline pushed more heavy rains into southern Texas where some flooding occurred. Scattered thundershowers greeted the extreme Northeast and Southeast on Tuesday. In west-central Minnesota, severe storms churned up a tornado that caused some damage. Isolated thunderstorms hit the Southern Plateau and the lower half of the Rockies. A few showers lingered along the New England coast. Soaring afternoon temperatures in the central Plains and middle Mississippi Valley sharply contrasted occasional frosts in the Colorado Rockies. At 99 degrees, Omaha, Nebraska, broke its record daily high, as did Memphis, Tennessee, with 98 degrees. In the cooler North, however, 60's ringed the Canadian border and stretched into northern sections of Washington, Idaho, and Montana. Meanwhile, warm 90's

Weather of the week continued on page 764.

SPECIAL INSECTS OF REGIONAL SIGNIFICANCE

ARMYWORM (Pseudaletia unipuncta) - MISSISSIPPI - Light infestations began on Bermuda grass lawns in Oktibbeha County week ending August 29. (Robinson). WISCONSIN - Moths increased in blacklight traps, but larvae not expected to be problem due to lateness of flight and decreasing degree-day accumulations prolonging larval development. (Wis. Ins. Sur.).

BEET LEAFHOPPER (Circulifer tenellus) - CALIFORNIA - Counts of one per 100 sweeps in sugar beets planted for spring harvest at Arbuckle, Williams, and Colusa, Colusa County. No curly top. Light on roadside Russian-thistle in same area. Up to 6 per sweep of roadside weed hosts around Livingston and Stevinson, Merced County. Russian-thistle acreage increased at Avenal and Kettleman City, Kings County. Counts very light for time of year except for field north of Kettleman City, with 50-100 hoppers per sweep. Less than one per sweep in all other areas. (Cal. Coop. Rpt.).

CORN EARWORM (Heliothis zea) - UTAH - Very light on home-grown and canning sweet corn in Box Elder, Cache, Salt Lake, Davis, and Tooele Counties. (Burningham et al.). TEXAS - Light to moderate in sorghum heads in isolated fields in Martin County. Moderate in Taylor County. (Neeb, McWhorter). OKLAHOMA - Averaged one per head on grain sorghum checked in Caddo, Washita, Beckham, and Custer Counties and ranged 1-2 per head in Tillman and Jackson Counties. Eggs averaged 2 per plant on soybeans in Ottawa County. (Okla. Coop. Sur.). KANSAS - Caused serious losses in commercial sweet corn in Johnson County. Larval counts (first instar to half grown) averaged 7 per ear in one field. (Bell). NEBRASKA - Infested 50 percent of corn ears in fields surveyed in Antelope County. (Witkowski). WISCONSIN - Moth catches in blacklight traps and larvae on sweet corn increased. Controls effective. Many larvae half grown. (Wis. Ins. Sur.).

ALABAMA - Corn earworm larvae economic, 4-6 per 6 feet of row, in several hundred acres of soybeans on several farms in Macon and Bullock Counties. (Henderson et al.). MISSISSIPPI - Infested all ears of late-planted corn grown for silage in Noxubee County week ending August 29. (Robinson). NORTH CAROLINA - Sharp larval decline on soybeans south of Johnston, Wayne, and Lenoir Counties. Remained above threshold in many fields in northern half of Coastal Plain. Larvae 90 percent fifth and sixth instars in 15 Wilson, Edgecombe, Pitt, Martin, and Halifax County fields; many larvae pupated. (Hunt). MARYLAND - Larvae continued to increase in most unsprayed lima beans on Eastern Shore week ending August 29. Larvae on soybeans on Eastern Shore and southern area averaged less than one per 20 feet of row. Heaviest damage in late season processing sweet corn ranged 5-20 percent on Eastern Shore. Currently adults 18-45 per night in Wicomico, Caroline, Kent, Somerset, St. Marys, and Charles Counties. Some pod feeding in soybeans but injury very light to date. (U. Md., Ent. Dept.). VIRGINIA - Averaged 9.3 larvae per 30 row feet in 21 soybean fields (744 acres) in Charles City County. One field at treatment level. Larvae 3.4 per 30 row feet in 55 fields in Westmoreland County. Pupation began in Isle of Wight County. Sprays applied in Northampton and southern Westmoreland Counties. (Allen).

GREENBUG (Schizaphis graminum) - TEXAS - Parasitism effective in Hale County. Light in isolated grain sorghum fields in Trans-Pecos area. Heavy in San Angelo area. (Latham et al.). NORTH DAKOTA - Total loss to Sudan grass near Colfax, Richland County. (Schulte, McBride).

POTATO LEAFHOPPER (Empoasca fabae) - MARYLAND - Heavy on unsprayed lima beans and snap beans statewide week ending August 29. (U. Md., Ent. Dept.). WISCONSIN - Numerous on beans in Winnebago County. (Wis. Ins. Sur.).

CORN, SORGHUM, SUGARCANE

FALL ARMYWORM (Spodoptera frugiperda) - FLORIDA - Very heavy, up to 3 larvae per plant, on 99 percent of untreated late-planted sorghum in 7 fields (300 acres) in Levy County. (Fla. Coop. Sur.). MISSISSIPPI - Up to 5 larvae per stalk on late-planted sorghum and corn grown for silage in Noxubee, Lowndes, Hinds, and Neshoba Counties. (Mitchell). ALABAMA - Larvae on all late corn in Tuscaloosa County; completely destroyed 40-acre field. Damaged lawn grasses at several homes; controls applied. (Pitts, Pigott). NORTH CAROLINA - Continued severe damage to localized cornfields across State. Averaged one larva per plant with 25 percent of plants completely stripped in 15-acre cornfield in Scotland County. Damaged sorghum and Bermuda grass particularly in Piedmont and western Coastal Plain counties. (Hunt).

EUROPEAN CORN BORER (Ostrinia nubilalis) - KENTUCKY - Percent corn infested by county (and borers per 100 plants): Union 30.4 (18.0), Henderson 18.4 (12.0), Daviess 44.0 (42.4), Webster 49.6 (46.0), McLean 28.7 (11.0), Muhlenberg 30.8 (21.2), Ohio 8.8 (4.8). (Barnett). OHIO - Averaged 17 percent infested corn plants in east-central counties; larvae 20 per 100 plants. (Lewis). WISCONSIN - Heavy on sweet corn. Infested up to 75 percent of ears in treated fields in central and south-central counties; half of larvae on silks and half on ear tips. Larvae in first to fourth instars; majority in second and third. Fresh egg masses on 8 percent of plants near Alma Center, Jackson County. Many female moths in blacklight traps heavy with eggs. (Wis. Ins. Sur.). NEBRASKA - Second brood on corn severe in most areas of northeast district. Larvae 0.5-0.75 inch long. Infested all plants in all fields surveyed in Cedar County. (Witkowski).

WESTERN CORN ROOTWORM (Diabrotica virgifera) - UTAH - Adults in Cache County more numerous in northern Cache Valley than in southern portion, affected 400 acres. (Burtenshaw). NEBRASKA - Economic in 2 cornfields in Chase and Perkins Counties; larvae nearly full grown. Infested 80 percent of ears in Antelope County. (Campbell, Witkowski).

SORGHUM MIDGE (Contarinia sorghicola) - TEXAS - Light to moderate on sorghum in isolated fields in Glasscock County. Moderate to heavy in San Angelo and Rolling Plains. (Neeb et al.). OKLAHOMA - Light to moderate on grain sorghum in Caddo, Washita, Beckham, and Custer Counties. Light in Jackson, Harmon, Greer, Tillman, and Kiowa Counties; isolated fields with 5-7 per head. (Okla. Coop. Sur.).

TURF, PASTURES, RANGELAND

A SOD WEBWORM (Crambus trisectus) - MARYLAND - Larvae, 2-18 per square foot, heavily damaged 600 acres of commercial sod in Charles, Queen Annes, and Montgomery Counties. (U. Md., Ent. Dept.).

FORAGE LEGUMES

PEA LEAF WEEVIL (Sitona lineatus) - IDAHO - Ranged 100-200 per sweep on alfalfa north of Grangeville, Idaho County. Defoliation widespread in uncut alfalfa. (Fisher).

PEA APHID (Acyrthosiphon pisum) - OHIO - Averages per sweep of forage legumes by county: Harrison 4.4, Jefferson 1.0, Carroll 60.0, Columbiana 31.0, Stark 29.0, and Mahoning 3.5. (Lewis).

SOYBEANS

VELVETBEAN CATERPILLAR (Anticarsia gemmatalis) - ALABAMA - Leaf loss excessive on 100,000+ acres of soybeans throughout much of southwest area. Pseudoplusia includens (soybean looper) caused 35-50 percent leaf loss. Controls applied. (Henderson et al.). FLORIDA - A. gemmatalis economic, 4-6 larvae per foot of row, on soybeans in western Alachua County; required treatment. Still heavy in most northwestern areas. (Fla. Coop. Sur.).

GREEN CLOVERWORM (Plathypena scabra) - MISSISSIPPI - Heavy in maturing soybeans week ending August 29. Larval averages per foot of row by county: Lauderdale one in 20 acres, Jones 1.6 in 80 acres, Covington 5.2 in 30 acres, Lawrence 4.3 in 40 acres. (Manuel, Smith). MARYLAND - Feeding injury increased slightly over last period. Larvae in most heavily infested fields ranged 3-4 per foot of row. Most fields had 1-8 larvae per 10 feet of row. (U. Md., Ent. Dept.).

MEXICAN BEAN BEETLE (Epilachna varivestis) - ALABAMA - Continued damage in several thousand acres of soybeans in Limestone, Madison, Jackson, and Cherokee Counties. (Cain et al.). VIRGINIA - Adults averaged 13.1 per 30 row feet in 55 soybean fields (1,200 acres) in Westmoreland County. Defoliation averaged 4.6 percent. One field needed treatment. Adults averaged 0.14 per 30 row feet in 21 fields (744 acres) in Charles City County. Defoliation averaged about 4.5 percent. Damage noticeable in many fields in Isle of Wight County; economic in 2 of 8 fields. (Allen). MARYLAND - Damage increased in unsprayed soybeans. Damage on Eastern Shore less severe than in 1974 at this time. Parasitism rates of Pediobius foveolatus (a eulophid wasp) rapidly increased in all areas on Eastern Shore and southern area. Increased 30 percent over past period in several fields in pest management programs. (U. Md., Ent. Dept.).

COTTON

BOLL WEEVIL (Anthonomus grandis) - TEXAS - Increased on cotton in Rolling Plains. Light to heavy in San Angelo and Trans-Pecos areas. (Boring et al.). OKLAHOMA - Punctured cotton squares up to 95 percent in McClain, Caddo, and Washita Counties and 10-40 percent in most fields in southwest counties. Averaged 20 percent in Grady

County. (Okla. Coop. Sur.). LOUISIANA - Squares damaged by boll weevil continued to rise in many fields. (Tynes). ARKANSAS - Heavier than in several years. Heavier in northern than in southern area as usual. Boll feeding principal threat at this time. (Boyer). MISSISSIPPI - Larvae and adults heavy in most hill cotton week ending August 29. Up to 60 (averaged 15) percent punctured squares in some fields. (Robinson). ALABAMA - "Hatch-outs" and damage continued heavy throughout State. Controls effective with past 10 days of dry, hot weather. (McQueen).

BOLLWORMS (Heliothis spp.) - TEXAS - H. zea (bollworm) did not increase on cotton in Rolling Plains area last period as expected. Continued moderate to heavy in Hale County. Activity slight except in few young fields and in some green spots of fields in south-central area. Moderate in Taylor, Nolan, and Concho Counties. Light to moderate in Trans-Pecos area. H. virescens (tobacco budworm) light to moderate in Trans-Pecos and San Angelo areas. (Neeb et al.). OKLAHOMA - Heliothis spp. eggs 2-38 per 100 cotton terminals, larvae 0-24 per 100 terminals, and damaged squares 4-18 percent in Harmon, Green, Jackson, Tillman, and Kiowa Counties. Larvae up to 60 per 100 terminals in McClain County. Damaged squares averaged 19 percent in Grady County. (Okla. Coop. Sur.). LOUISIANA - Egg laying by H. virescens and H. zea increased sharply week ending August 29. Eggs per 100 terminals by parish: Natchitoches 900, Bossier 200, and Tensas 80. Egg numbers varied from field to field. (Tynes). MISSISSIPPI - H. zea and H. virescens caused abandonment of few fields in counties in Delta and north Mississippi Hill. Egg counts range from 0-10 percent on old mature cotton up to 100 percent in terminals of green cotton. (Robinson). ALABAMA - Moth flights increased past 7-10 days with H. virescens predominant. Controls difficult past 10 days in many counties. (McQueen).

BANDEDWING WHITEFLY (Trialeurodes abutilonea) - MISSISSIPPI - Building up on green cotton; infested 50-60 percent of terminals in some fields in Tunica, Grenada, and Noxubee Counties. (Robinson).

COTTON APHID (Aphis gossypii) - TEXAS - Light to heavy on cotton in Pecos Valley area. (Neeb).

MISCELLANEOUS FIELD CROPS

SUNFLOWER BEETLE (Zygogramma exclamationis) - TEXAS - Light to moderate on sunflowers in Hardeman and Wichita Counties. (Boring).

CARROT BEETLE (Bothynus gibbosus) - TEXAS - Increased in light traps at Lockett, Wilbarger County. (Boring). OKLAHOMA - Light trap counts by county: Greer 2,261 and Tillman 361. (Okla. Coop. Sur.).

POTATOES, TOMATOES, PEPPERS

VARIEGATED CUTWORM (Peridroma saucia) - UTAH - Damaged large acreage of potatoes in general area of Enterprise, Washington County, and north into Iron County. (Huber, Roberts).

COLE CROPS

CABBAGE LOOPER (Trichoplusia ni) - KANSAS - Heavy in commercial collards field in Johnson County. (Bell). WISCONSIN - Populations consistent and hard to control except where controls regularly applied. Larvae 1-3 per head in southeastern counties. Most larvae more than half grown although cabbage field in Kenosha County contained newly emerged larvae, with up to 5 larvae per head. Larvae fewer than one per head, generally more than half grown, in Columbia and Outagamie Counties. Moth catches in pheromone traps week ending September 1: Outagamie County - 25 (average of 2 trapping sites) and Racine County - 27. (Wis. Ins. Sur.).

HAWAII INSECT REPORT

General Vegetables - TOMATO PINWORM (Keiferia lycopersicella) infested less than 5 percent of terminals in 3 acres of tomatoes at Pulehu, Maui; light on fruit. Moderate on foliage in 2-3 acres of relatively young plants; infested at least 30 percent of terminals. Several plants heavily infested; 70-100 percent of leaves bore infested leaflets. (Tsuda, Mau). CARMINE SPIDER MITE (Tetranychus cinnabarinus) light, 0-10, per square inch, in 1.5 acres of bell peppers and in one acre of eggplant at Lualualei, Oahu. Damage light to peppers but moderate on eggplant foliage. Light counts on 1,200 square feet of parsley at Waianae, Oahu. Foliar damage severe; leaves unmarketable. (Sanidad). All stages of CHRYSANTHEMUM THRIPS (Thrips nigropilosus) heavy in small plantings of lettuce, chicory, and endive at St. Louis Heights, Oahu. Did not infest nearby plantings of composites and crucifers. This thrips not common in Hawaii. (Sakimura).

DETECTION

New State Record - FACE FLY (Musca autumnalis) - LOUISIANA - East Carroll Parish. (p. 761).

New County and Parish Records - CAMPHOR SCALE (Pseudaonidia duplex) FLORIDA - Levy (p. 761). BRONZE BIRCH BORER (Agrilus anxius) OREGON - Baker, Deschutes, Union, Wallowa (pp. 760-761). FACE FLY (Musca autumnalis) LOUISIANA - West Carroll (p. 761). SMALLER EUROPEAN ELM BARK BEETLE (Scolytus multistriatus) NORTH DAKOTA - Burleigh, Morton (p. 760).

CORRECTIONS

CEIR 25(35):728 - JAPANESE BEETLE for GEORGIA and INDIANA, "... Determined by E.L. Todd ..." should read "... Determined by J.M. Kingsolver ..."

DECIDUOUS FRUITS AND NUTS

WOOLLY APPLE APHID (Eriosoma lanigerum) - OKLAHOMA - Damaged apple trees in Caddo County. (Okla. Coop. Sur.).

FALL WEBWORM (Hyphantria cunea) - TEXAS - Light on pecans in Rolling Plains area; moderate to heavy in San Angelo area. (Boring, McWhorter). OKLAHOMA - Heavy on pecans and other trees in northeast, east-central, and southeast areas week ending August 29. (Okla. Coop. Sur.). MISSISSIPPI - Defoliated 50-60 percent of orchard and yard pecans along Mississippi River in Adams County. (Robinson). ALABAMA - Larvae heavily damaged many pecan, walnut, and shade trees in Tuscaloosa County and other western areas. (Pigott). MISSOURI - Heavy on walnuts in southwest area. Completely defoliated many trees. (Munson). NORTH CAROLINA - Damage increased on pecans across entire State past 3 years. Heaviest as usual in Coastal Plain, Piedmont, and northern mountain areas. Webs 1-10 on 30-45 percent of pecan trees. (Hunt).

PECAN WEEVIL (Curculio caryae) - TEXAS - Controls still applied in Wichita and Young Counties. Light to moderate in San Angelo area. (Boring, McWhorter). OKLAHOMA - Heavy on pecans in Kay, Love, and Comanche Counties. (Okla. Coop. Sur.). MISSISSIPPI - Emerged in Lowndes County week ending August 29. (Neel).

BLACK PECAN APHID (Tinocallis caryaefoliae) - TEXAS - Light numbers on pecans increased in Throckmorton and Young Counties. Light to heavy on trees in Trans-Pecos and San Angelo areas. (Neeb et al.).

SMALL FRUITS

STRAWBERRY ROOT WEEVIL (Otiorhynchus ovatus) - IDAHO - Destroyed plants and berries near Plummer, Benewah County. (Homan).

ORNAMENTALS

BAGWORM (Thyridopteryx ephemeraeformis) - ALABAMA - Heavy on pine, arborvitae, and cedar in Jackson, De Kalb, and Tallapoosa Counties. (Dulaney et al.).

HAWTHORN LACE BUG (Corythucha cydoniae) - OKLAHOMA - Heavy on pyracantha in Payne and Caddo Counties. (Okla. Coop. Sur.).

FOREST AND SHADE TREES

SMALLER EUROPEAN ELM BARK BEETLE (Scolytus multistriatus) - NORTH DAKOTA - Adults collected from multilure pheromone sticky traps at Bismarck, Burleigh County, and Mandan, Morton County, by W.J. Brandvik, September 3, 1975. Determined by W.J. Brandvik. These are new county records. (Brandvik).

BRONZE BIRCH BORER (Agrilus anxius) - UTAH - Damage unusually serious this season in Salt Lake, Davis, and Weber Counties. (Burningham, Knowlton). OREGON - Following 4 counties are new. Damaged about half of ornamental birch trees at Enterprise, Wallowa County, by July 15, 1975. Five percent dead. Damage at Wallowa. Flagging on 4 very large 100-year-old trees at Elgin, Union County, by July 16. Collected and determined by R.L. Penrose. Collected

from Betula occidentalis (water birch) 12 miles south of Baker, Baker County, by R.L. Westcott and R.L. Penrose August 14. Determined by R.L. Westcott. Very small population present September 3 one mile east of Sisters, Deschutes County, in apparently isolated stand of B. occidentalis. Observed and determined by R.L. Westcott. (Penrose, Westcott).

ELM LEAF BEETLE (Pyrrhalta luteola) - TEXAS - Heavy on shade trees in San Angelo area. (McWhorter). OREGON - Damage to elm trees in Bend, Deschutes County, very extensive. (Penrose).

VARIABLE OAKLEAF CATERPILLAR (Heterocampa manteo) - OKLAHOMA - First of season on blackjack oak in Tulsa County and oak in Payne County. (Okla. Coop. Sur.).

WESTERN TENT CATERPILLAR (Malacosoma californicum) - OREGON - Egg masses on commercially grown cutleaf and clump birch and hawthorn nursery stock in Washington and Multnomah Counties heavier than in 1974, particularly in untreated areas. (Sjoblom).

CAMPHOR SCALE (Pseudaonidia duplex) - FLORIDA - Collected on leaves of Cinnamomum camphora (camphortree) in nursery at Williston, Levy County, by F.J. McHenry August 27, 1975. Determined by G.W. Dekle. This is a new county record. (Fla. Coop. Sur.).

MAN AND ANIMALS

FACE FLY (Musca autumnalis) - LOUISIANA - Light, averaged less than 5 per face, on 2 herds of cattle 15 miles apart at Lake Providence, East Carroll Parish. Collected by E.C. Burns, C.L. Meek, and D.G. Melancon August 11, 1975. Determined by E.C. Burns and C.L. Meek. This is a new State record. Collected from horse and calf at Oak Grove, West Carroll Parish, by C.L. Meek and R.A. Farlow August 20. Determined by C.L. Meek. This is a new parish record. MISSISSIPPI - Adults averaged 1-2 per face on 50 beef cattle in Oktibbeha County; 15 per face on 100 head in Grenada County. (Robinson). NEBRASKA - Averaged 15 per treated or untreated animal on cattle checked in southwest district. (Campbell).

HORN FLY (Haematobia irritans) - TEXAS - Lighter in south-central area. Light to moderate on cattle in Rolling Plains and Trans-Pecos areas. Moderate to heavy on cattle, sheep, and goats in San Angelo area. (Cole et al.). OKLAHOMA - Averaged 400 per head on cattle in Payne County and 200 per head in Noble County. Heavy in Garvin and Comanche Counties. (Okla. Coop. Sur.). MISSISSIPPI - Adults averaged 100+ on 100 beef cattle in Noxubee, Oktibbeha, Webster, and Grenada Counties. (Robinson). NEBRASKA - Averaged 500+ per head on untreated cattle checked in southwest district. (Campbell).

STABLE FLY (Stomoxys calcitrans) - NEBRASKA - Declined somewhat, probably due to drying of breeding areas. Averaged 10 per leg on untreated cattle checked in southwest district. (Campbell).

FEDERAL AND STATE PLANT PROTECTION PROGRAMS

GRASSHOPPERS - UTAH - Injurious numbers on range south of Avon, Cache County; for 3 years now in area east of Santaquin and east of Payson Lake, Utah County; south of Leamington, Millard County; north of Fish Lake, Sevier County; and in Jap Valley west of Gunnison, Sanpete County. (Stephens). Being carefully controlled in commercial bean fields in Box Elder County to avoid contamination during canning process. (Duncan). COLORADO - Predominantly Melanoplus bivittatus, 8-40 per square yard, from Kassler to Castle Rock, with heaviest count near Sedalia, Douglas County, on rangeland and some weedy areas. (PPQ).

GYPSY MOTH (Porthetria dispar) - MARYLAND - Male trap surveys recovered 20 positive finds in Washington County. Well established in Cecil and Harford Counties. Many positive finds in Baltimore County. Pimpla turionellae (an ichneumonid wasp) released at 2 sites; 550 parasites in Cecil County and 225 in Washington County. (U. Md., Ent. Dept.). PENNSYLVANIA - Egg masses observed August 29 in Potter County in 3 State parks and in Tioga County. (Gates). ILLINOIS - During July and August, 191 adult males trapped in one square mile area near Palos Park in Cook County. No larvae, egg masses, or females found. (Ill. Ins. Rpt.).

ORIENTAL FRUIT FLY (Dacus dorsalis) - CALIFORNIA - Traps operated all summer in 1974-infested area including National City with 10 traps per square mile. Additional traps deployed. (Cal. Coop. Rpt.).

PINK BOLLWORM (Pectinophora gossypiella) - TEXAS - Light infestations in isolated cotton fields in Trans-Pecos area. (Neeb).

POTATO TUBERWORM (Phthorimaea operculella) - MICHIGAN - Found in survey of potato fields in Monroe County week ending August 23. (Hanna).

SMALLER EUROPEAN ELM BARK BETTLE (Scolytus multistriatus) - CALIFORNIA - Dutch elm disease confirmed only in Sonoma and Napa Counties to date. Tree removal underway in both counties. Second-generation flight in infested area nearly over. Flight in full emergence at Sacramento, Sacramento County. One trap caught 3,700 beetles in area of Sacramento in 3 days. All elms in infested counties being checked. Surveys in many adjacent counties. All reported suspects being checked. (Cal. Coop. Rpt.).

LIGHT TRAP COLLECTIONS

	Temperature °F	Precipitation (inches)	Type of trap (BL = blacklight, MV = incandescent mercury vapor, O = other)	Agrotis ipsilon (dark sword-grass caterpillar)	Estigmene acrea (salt marsh caterpillar)	Fusus scabricornis (army cutworm)	Feltia subterranea (granulate cutworm)	Heliothis virescens (tobacco budworm)	H. zea (bollworm, corn earworm, tomato fruitworm)	Laphygma frugiperda (fall armyworm)	Leucania commutabilis (armyworm)	Leucania pseudargyria (variable armyworm)	Leucania scirpicola (dark armyworm)	Loxostege cerealis (garden webworm)	Loxostege sticticalis (beet armyworm)	Mamestra configurata (tobacco budworm)	Mamestra picta (tobacco budworm)	Melanchra adjuncta (tobacco budworm)	Orthosia hibisci (turnip moth larvae)	Peridroma saucia (variegated cutworm)	Pseudaletia unipuncta (armyworm)	Spodoptera exigua (beet armyworm)	Spodoptera frugiperda (fall armyworm)	Spodoptera praefica (grapeleaf skeletonizer)	Trichoplusia ni (cabbage looper)	Crops
COLORADO																										
Denver 8/22-29			BL	1								51														
FLORIDA																										
Gainesville 8/29-9/4			BL	1				2	1	8												5	6	7		
KANSAS																										
Garden City 9/2			BL	19			16			196									1	12	10					
Tribune 8/4, 7, 11, 18, 21, 25			BL			4	73			18										4	4					
MICHIGAN (County)																										
Lenawee 8/26-9/1			BL							161									101		222					
Oceana 8/22-9/2			2BL							22									42		390					
MISSISSIPPI																										
Stoneville 8/29-9/4	68-96		2BL	173	14			37	1057	327											53	258	714	113	9332	
NEW JERSEY																										
Seabrook 8/27-9/2			BL	23						17			35			9			27		49		13		5	
Vineland 8/27-9/2			BL	29						38						12			3		62		15		7	
NORTH DAKOTA																										
Bismarck 8/28, 9/3			BL																		15					
Fargo 9/4			BL	2																	8					
OHIO																										
Wooster 8/30-9/5			3BL	13						31									54	61	97		276	43	6	
PENNSYLVANIA (Districts)																										
Central 8/26-9/3			7BL	4						4	1								5	7	20		30	2		
Southeast 8/26-9/3			6BL	5						3										2	12			3		
VIRGINIA																										
Blacksburg 8/29-9/4			BL	30						45						8	13		1	4	57		35	32		
WISCONSIN																										
Lancaster 8/28-9/3			BL							35									15	9	12		1			
Mazomanie 8/28-9/3			BL	9						20									102	10	69		5			

Weather of the week continued from page 754.

extended from Florida and the gulf to the lower Ohio Valley and from Texas into the southern and central Plains. Following the normal seasonal pattern, northern Rocky Mountain States and the Far West claimed most of Wednesday's sunshine and the Plains and southern States shared what remained. Best weather news came from the Midwest where high temperatures in parts of Iowa and Nebraska dropped from the upper 90's to the low 80's and mid 70's. Yesterday's 99 degree reading in Omaha skidded to a pleasant 72 degrees. In the central Plains a slow moving cold front on Wednesday produced some showers and thundershowers in Nebraska, Kansas, and Iowa. Thunderstorms in parts of Ohio and Indiana kicked up severe weather that damaged buildings and trees. The same front that delivered dry air to much of the Plains and the lower Mississippi Valley poured showers and thundershowers across middle Mississippi Valley on Thursday. The line of storms developed from Iowa into northeast Kansas and another from central Kansas into southern Missouri. The northeast quarter of the Nation, however, had a different story to tell. Rains left untouched areas from Tennessee and the upper Ohio Valley east to the Atlantic coast. More cold air made its way into the Northwest bringing the first scattered frost of the season to Montana. In contrast, temperatures in California eased upward amid warm dry air. Early Friday morning, warm humid air and readings in the 70's held from the southern Atlantic coast through the lower Mississippi Valley region. Afternoon temperatures skyrocketed in the West ranging as high as 20 degrees above normal for this time of year. The mercury topped 100 degrees in the interior of California and southwest Oregon. Even normally the cool northern Pacific coast reported temperatures in the 80's. Showers and thunderstorms concentrated mostly on the eastern half of the Nation. The frontal system set off afternoon thunderstorms from Ohio to the middle Mississippi Valley that produced some tornadoes, strong winds, and hail. High pressure centers cleared skies from the northern and central Plains to the Pacific coast and brought cool dry air to the Northwest. Signs of fall turned up over the weekend across a large section of the Nation. Nights were cool and crisp from the upper Great Lakes into the northern and central Plains. Overnight lows in the 40's and 50's ranged from the northern Plains as far south as Arkansas and Oklahoma. In the northern border States the nighttime mercury dipped into the 40's and in some spots the 30's. Dividing the Nation's weather on Saturday, a cold front stretched from New England across eastern Pennsylvania, Tennessee, and central Texas. Clouds spilled showers throughout the East, but mostly sunny mild weather prevailed elsewhere. Sunday, clouds blanketed usually sunny skies in the Southwest and moist air produced showers in Arizona and southern California.

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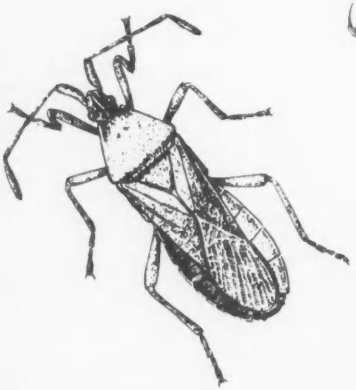
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